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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,773	07/14/2003	Ryoko Miyachi	60188-577	4027

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EXAMINER

CHOW, CHARLES CHIANG

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,773

Applicant(s)

MIYACHI ET AL.

Examiner

Charles Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1-4,9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Detailed Action**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Camp Jr. et al. (US 6,236,214 B1).

Regarding **claim 1**, Camp teaches a cellular mobile phone 10 [Fig. 1] which is driven by a battery 12, the phone 10 comprising a control unit [ microprocessor 22 Fig. 6] for calculating available time for the cellular mobile phone [ col. 2, lines 47-58, steps in Fig. 9], while updating, when necessary, data that indicates remaining capacity of the battery in terms of the terminal voltage of the battery [ while recalculating, updating, talk time as temperature decreases, col. 5, lines 56-62; the updating in col. 6, lines 14-19; the terminal voltage 3.8-3.1 volts in Fig. 8] and a display unit for displaying thereon the calculated available time [Fig. 11, displayed remaining available talk time 37, standby time 95 minutes].

Regarding **claim 2**, Camp teaches the further comprising a temperature detection unit for detecting temperature near the battery [thermocouple 20 detects temperature near battery 12, Fig. 6, col. 5, lines 11-30],

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wherein the control unit [ microprocessor 22] also functions to correct the data that indicates the remaining capacity in accordance with the detected temperature [ the tracking, updating, current, capacity, col. 5, lines 51-62].

Regarding **claim 3**, Camp teaches the wherein the control unit 22 also has the function of calculating the available time for the cellular mobile phone based on the magnitude of the battery's current which is required in accordance with a radio-wave receiving condition in the cellular mobile phone [ microprocessor 22 calculates remaining available time based on discharging rate, current, steps 226; counting the superframes in steps 240,226 of the radio wave receiving condition]

Regarding **claim 4**, Camp teaches a semiconductor integrated circuit [ integrated circuit 20-24, Fig. 6] for a cellular mobile phone 10 which is driven by a battery 12, the circuit comprising a control unit [ microprocessor 22 Fig. 6] for calculating available time for the cellular mobile phone [ col. 2, lines 47-58, steps in Fig. 9], while updating, as necessary, data which indicates remaining capacity of the battery in terms of the terminal voltage of the battery [ while recalculating, updating, talk time as temperature decrease, col. 5, lines 56-62; the updating in col. 6, lines 14-19; the terminal voltage 3.8-3.1 volts in Fig. 8] and means for having the calculated available time displayed [Fig. 11, displayed remaining available talk time 37, standby time 95 minutes].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

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matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Sklovsky (US 6,710,578 B1).

Regarding **claim 9**, Camp teaches a cellular mobile phone 10 which is driven by a battery 12. Camp fails to teach the phone comprising a control unit for exercising control in order to reduce, in accordance with the magnitude of remaining available capacity of the battery, the number of times a process for making a backup of user data is performed.

Sklovsky teaches these features [ the radiotelephone 102, Fig. 1, having control unit processor 116 for exercising control steps in Fig. 2/Fig. 4, to restrict operation mode, abstract, to select the operation mode based on the remaining battery capacity, col. 5, lines 40-63; the not to save user internal data using radio communication mode, for the data backup, based on battery capacity in col. 6, lines 20-34 ], in order to extend the battery lifetime for further usage [col. 2, lines 4-7] by reducing the power consumption [col. 1, lines 6-10]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Camp with Sklovsky's reducing the saving user data, in order to extend the battery lifetime.

Regarding **claim 13**, Camp teaches a semiconductor integrated circuit for a cellular mobile phone [integrated circuit 20-24, Fig. 6, for cellular phone 10] which is driven by a battery 12, the circuit comprising a control unit [22].

Camp fails to teaches a control unit for exercising control in order to reduce, in accordance with the magnitude of remaining available capacity of the battery, the number of times a process for making a backup of user data is performed.

Sklovsky teaches these features [ the radiotelephone 102, Fig. 1, having control unit processor 116 for exercising control steps in Fig. 2/Fig. 4, to restrict operation mode,

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abstract, to select the operation mode based on the remaining battery capacity, col. 5, lines 40-63; the not to save user internal data using radio communication mode, for the data backup, based on battery capacity in col. 6, lines 20-34], in order to extend the battery lifetime for further usage [col. 2, lines 4-7] by reducing the power consumption [col. 1, lines 6-10]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Camp with Sklovsky's reducing the saving user data, in order to extend the battery lifetime.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Sklovsky, as applied to claim 9 above, and further in view of Gold et al. (US 6,785,786 B1). Regarding **claim 10**, Sklovsky teaches the operation mode restriction based on the battery capacity condition, to save user backup data. Camp & Sklovsky fail to teaches the wherein the control unit functions to delay the backup process, if the remaining capacity of the battery is sufficiently larger than necessary capacity for the backup process. Gold et al. [Gold] teaches these features [ the control unit of backup 240 eliminates redundant data files to be backup, abstract; the delaying of data backup for the data chunk, col. 7, line 66 to col. 8, line 11; for the battery having sufficient larger than necessary capacity, to power RAM, ROM in col. 17, lines 35-45], in order to reliably control the backup operation [col. 1, lines 45-50]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Camp & Sklovsky with Gold's lager enough battery capacity, to delay the data back to RAM, with data chunk, in order to reliably control the backup operation.
4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view Sklovsky, as applied to claim 9 above, and further in view of Mansfield (US 6,693,996 B2).

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Regarding **claim 11**, Ca,p & Sklovsky fail to teach the wherein the phone is structured in such a manner that a memory in which the backup of the user data is stored may be selected from among an internal memory of the cellular mobile phone, a home memory for managing subscriber information, and an external memory other than the home memory.

Mansfield teaches these features [ the cordless phone has internal memory for backup user data, col. 1, lines 26-41; the user data backup in external local memory of the end point, and the home memory of the gateway for backup user data, abstract, Fig. 1-2, Fig. 6], in order to prevent data loss due to battery failure [abstract]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Camp & Sklovsky with Mansfield's use data backup with data copy available from memory at local end point and memory at gateway, in order to prevent data loss due to battery failure.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view Sklovsky, as applied to claim 9 above, and further in view of Tso (US 2003,0023,673 A1).

Regarding **claim 12**, Camp & Sklovsky fail to teach the wherein the control unit also functions to find and delete unnecessary data in the user data if remaining capacity of a memory in which the backup of the user data is to be stored is insufficient. Tso teaches the microprocessor 602 of the wireless PDA [Fig. 1], the insufficient remaining capacity of a memory during data backup, to find & delete unnecessary data [paragraph 0034], in order to backup large amount of data while traveling [0008]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Camp & Sklovsky with Tso's find & delete unnecessary data, in order to backup large amount of user data.

**Allowable Subject Matter**

6. The following is an examiner's statement of reasons for allowance:

Claims 5-8 are allowable over the prior art of record, the prior art fails to teach singly, particularly, or in combination, the subject matter, for the feature of **a transmit/receive unit for providing an external device with notification of measured terminal voltage and current, and receiving notification of available time** for the cellular mobile phone, **wherein the external device has calculated the available time while updating data**, when necessary, which indicates remaining capacity of the battery in terms of the terminal voltage of the battery, and display unit for displaying thereon the notified available time [claims 5, 8], for the controlling of operating communication time with the external device, base station. The dependent **claims 6-7** are also allowable due to their dependency upon the independent claims and the additional claimed features.

The closest prior art to **Bigwood et al. (US 2002/0086,718 A1)** teaches the mobile units 3 for over the air transmitting of the battery parameter, battery condition, to fleet controller of mobile units, for notifying current battery capacity condition [Fig. 1-2, abstract, paragraphs 0011-0018]. Bigwood et al. fail to teach **the transmitting of battery voltage, current, information, & receiving calculated available time from external device, while mobile phone updating data, the external device calculating the available time.**

**Higuchi et al. (US 2001/0008,424 A1)** teaches the micro-computer 63 of the video camera 60 communicates with the battery 1 via communication circuit 65, for receiving the residual battery capacity, charging/discharging current, detected voltage from battery 1, for displaying the calculated result of the residual battery capacity [abstract, Fig. 1/Fig. 6]. Higuchi fails to teach **the cellular phone for transmitting battery voltage, current to external device, instead of external device sending battery voltage, current,**



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**information to video camera, and fail to teach the cellular phone receiving calculated available time from external device, while updating data.**

Other prior arts in below has been considered, but they fail to teach the above claimed features.

**Green Jr. et al. (US 6,201,372 B1)** teaches portable telephone having battery pack gauge for indicating the battery remaining capacity to portable phone, for a decision to switch into a power saving mode [abstract, Fig. 1].

**Kawahara et al. (US 5,739,674)** teaches the portable unit 1 for transmitting remaining battery capacity indication signal to communication unit 2 according to the battery capacity range of the indicator lamp in a system 10 [abstract, Fig. 1].

**Ooi et al. (US 2004/0104,706 A1)** teaches a battery pack 4 communicates with a electrical equipment 1 with the battery information, for the displaying of remaining battery capacity on the electrical equipment 1 [abstract, Fig. 1].

Other prior arts are considered, but they do not teach the above allowable feature:

**Ishida (US 6,313,832 B1), Choo (US 2002/0093,312 A1), Patino et al. (US 6,384,578 B1), Uskali et al. (US 5,455,499).**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

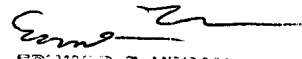
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *CC*

October 19, 2005.



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